IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A fiber laser comprising ~~in a resonator~~:

a normal dispersion optical fiber including a rare earth-doped optical fiber as a gain medium;

an anomalous dispersion optical fiber; and

~~a rare earth-doped optical fiber as a gain medium; and~~

a mode locking mechanism, wherein

~~at least said rare earth-doped optical fiber is included as said normal dispersion optical fiber, and~~ a length of said normal dispersion ~~rare earth-doped~~ optical fiber is set shorter than that of said anomalous dispersion optical fiber, and

an absorption-length product of the length of the normal dispersion optical fiber and a peak absorption value of the normal dispersion optical fiber is greater than 55 dB at a wavelength of 1.53 μm.

2. (Currently Amended) A fiber laser comprising ~~in a resonator~~:

a normal dispersion optical fiber including a rare earth-doped optical fiber as a gain medium;

an anomalous dispersion optical fiber; and

~~a rare earth-doped optical fiber as a gain medium; and~~

a mode locking mechanism, wherein

~~at least said rare earth-doped optical fiber is included as said normal dispersion optical fiber,~~ an absolute value of [[the]] a normal dispersion per unit length at a central wavelength of [[the]] an output light spectrum in said normal dispersion optical ~~rare earth-doped~~ fiber is

larger than that of [[the]] an anomalous dispersion per unit length of said anomalous dispersion optical fiber, and

an absorption-length product of a length of the normal dispersion optical fiber and a peak absorption value of the normal dispersion optical fiber is greater than 55 dB at a wavelength of 1.53 μm.

3. (Currently Amended) A fiber laser comprising ~~in a resonator~~:

a normal dispersion optical fiber including a rare earth-doped optical fiber as a gain medium;[[,]]

an anomalous dispersion optical fiber [[,]]; and

~~a rare earth-doped optical fiber as a gain medium; and~~

a mode locking mechanism, wherein

~~at least said rare earth-doped optical fiber is included as said normal dispersion optical fiber,~~ a nonlinear ratio ~~coefficient~~ $(\gamma 2L2)/(\gamma 1L1)$ is larger than 1, where[[, in]] ~~said rare earth-doped fiber,~~ a nonlinear coefficient of said normal dispersion optical fiber is $\gamma 1$ [1/W/m], a length of said normal dispersion optical fiber is L1 [m], an effective nonlinear coefficient of other components of the resonator including the anomalous dispersion fiber is $\gamma 2$ [1/W/m], and a length of the other components of the resonator including the anomalous dispersion fiber is L2 [m], and

an absorption-length product of the length of the normal dispersion optical fiber and a peak absorption value of the normal dispersion optical fiber is greater than 55 dB at a wavelength of 1.53 μm.

4. (Currently Amended) The [[A]] fiber laser according to any one of claims 1, 2, and 3, wherein a total dispersion of the central wavelength of the output light spectrum in said resonator extends throughout ~~is a value within~~ a range of -1 ps^2 to +0.2 ps^2.

5. (Currently Amended) The [[A]] fiber laser according to claim 4, wherein a core portion of said normal dispersion ~~rare-earth-doped~~ optical fiber is added at least with an erbium (Er) ion.

6. (Currently Amended) The [[A]] fiber laser according to claim 5, wherein a peak value of absorption coefficient in 1.53 μm band of said Er-doped normal dispersion optical fiber is set within a range of 10 dB/m to 35 dB/m.

7. (Currently Amended) The [[A]] fiber laser according to claim 6, wherein a dispersion value in 1.55 μm band of said normal dispersion ~~rare-earth-doped~~ optical fiber in said resonator is at least ~~not less than~~ 21 ps^2/Km.

8. (Currently Amended) The [[A]] fiber laser according to claim 7, wherein a ratio of an absorption peak value to a dispersion value $\alpha/D[dB/ps^2]$ is not less than 500, where a dispersion value in 1.55 μm band of said normal dispersion ~~rare-earth-doped~~ optical fiber is $D[ps^2/m]$ and an absorption peak value in 1.53 μm band is α [dB/m].

9. (Currently Amended) The [[A]] fiber laser according to claim 8, wherein said resonator further comprises:

a pump light source configured to inject ~~for injecting~~ a pump light into said resonator and an optical multiplexer configured to multiplex ~~for multiplexing~~ the pump light from said

pump light source;[[,]] ~~and said resonator further comprises~~ a rare earth-doped optical fiber;[[,]]

a single mode optical fiber;[[,]]

a polarization beam splitter;[[,]]

an optical isolator;[[,]] and

a polarization plate.

10. (Currently Amended) A broadband light source using the fiber laser described in claim 9, wherein at least a highly nonlinear fiber is connected with an output side of the fiber laser to generate a supercontinuum (SC) light.

11. (Withdrawn) A broadband light pulse generating device comprising:

a pulse light source generating a noiselike pulse in which an envelop curve of an intensive waveform is in a timewise pulse state; and

a nonlinear medium exciting a nonlinear effect to said noiselike pulse,

wherein said noiselike pulse generates the supercontinuum light in said nonlinear medium to generate a broadband pulse light.

12. (Withdrawn) A broadband light pulse generating device according to claim 11, wherein said pulse light source has a laser resonating structure comprising in the resonator a normal dispersion medium, an anomalous dispersion medium, a gain medium, and a mode-locking mechanism.

13. (Withdrawn) A broadband light pulse generating device according to claim 12, wherein said normal dispersion medium is made of an optical fiber having a normal

dispersion, said anomalous dispersion medium is made of an optical fiber having anomalous dispersion, and said gain medium is made of a rare earth-doped optical fiber.

14. (Withdrawn) A broadband light pulse generating device according to claim 11, wherein said pulse light source comprises a noise light source generating noise light in which an intensive envelop curve is timewise constant, and a modulator modulating said noise light.

15. (Withdrawn) A broadband light pulse generating device according to claim 11, wherein said nonlinear medium is made of a DSF (dispersion shifted fiber), a dispersion flat fiber, and a photonic crystal fiber or a HNL (highly nonlinear fiber).

16. (Withdrawn) A noiselike pulse generating device generating a noiselike pulse in which an envelop curve of an intensive waveform is timewise pulse state by a duration-limited burst noise light, wherein the noiselike pulse generating device comprises a noise light source generating a noise light in which the intensive envelop curve is timewise constant and a modulator modulating said noise light, said modulator modulating said noise light to generate said noiselike pulse.

17. (New) The fiber laser according to claim 1, wherein
the length of said normal dispersion optical fiber is at least 2.5m; and
the length of said anomalous dispersion optical fiber is at least 4.9m.

18. (New) The fiber laser according to claim 2, wherein
the length of said normal dispersion optical fiber is at least 2.5m; and
the length of said anomalous dispersion optical fiber is at least 4.9m.

19. (New) The fiber laser according to claim 3, wherein

the length of said normal dispersion optical fiber is at least 2.5m; and

the length of said anomalous dispersion optical fiber is at least 4.9m.

20. (New) The fiber laser according to claim 1, wherein

a nonlinear coefficient of said normal dispersion optical fiber, $\gamma 1$ [1/W/m], and an effective nonlinear coefficient of other components of the resonator including the anomalous dispersion fiber, $\gamma 2$ [1/W/m], are equal.

21. (New) The fiber laser according to claim 2, wherein

a nonlinear coefficient of said normal dispersion optical fiber, $\gamma 1$ [1/W/m], and an effective nonlinear coefficient of other components of the resonator including the anomalous dispersion fiber, $\gamma 2$ [1/W/m], are equal.

22. (New) The fiber laser according to claim 3, wherein

a nonlinear coefficient of said normal dispersion optical fiber, $\gamma 1$ [1/W/m], and an effective nonlinear coefficient of other components of the resonator including the anomalous dispersion fiber, $\gamma 2$ [1/W/m], are equal.